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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/506,377	02/18/2000	Miki Yamada	04329.2231	8206

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EXAMINER

HENEGHAN, MATTHEW E

ART UNIT PAPER NUMBER

2134

DATE MAILED: 09/16/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/506,377

Applicant(s)

YAMADA ET AL.

Examiner

Matthew Heneghan

Art Unit

2134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other:

DETAILED ACTION

1. Claims 1-19 have been examined.

Information Disclosure Statement

2. The Information Disclosure Statement listed as a reference Japanese Patent Application No. 10-154192, but appears to have meant to refer to Japanese Patent Publication No. 10-154192, Application No. 09-251907, which has been considered.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: item "17" on page 12, line 16; item "20B" on page 27, line 12. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because:

- reference character "20A" has been used to designate both the Sensor Unit and the Client Authentication Section in Figure 4.
- reference character "ST3" has been used to designate both the "Encrypt Biological Data in IC Card..." in Figure 2 and "Encrypt Biological Data and Send..." in Figure 5.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: item "ST4" in Figure 2. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

6. The drawings are objected to because the following words may have been misspelled:

- "Section" in Figure 4, items "22" and "25"
- "Authenticatioon" in Figure 5, item "ST2"
- "Biologicak" in Figure 5, item "St4b"

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

7. Claims 7-10 are objected to because of the following informalities: Each claim lacks a transitional phrase that indicates whether the features recited limit the scope of the claim in an open- or closed-ended manner. For the purpose of this first office action, it is being assumed that the limitations are to be open-ended. See MPEP § 2111.03.

As per claims 9 and 10, the word "including," which may be used as a transitional phrase in some contexts, is noted in page 38, line 18; and page 39, line 13, respectively, but it appears in each claim to be describing the "personal authentication system," rather than the claimed "computer readable medium."

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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8. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The means by which the personal authentication units on page 37, lines 4-6 are related to the other recited elements in the claim must be given.

9. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 recites the limitation "said computer" in page 40, lines 5, 9, and 14. There is insufficient antecedent basis for this limitation in the claim. It is unclear whether the computer is that which in the fixed section (see page 39, line 14) or the personal authentication units (see page 39, line 24).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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10. Claims 1-12 and 15-19 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,790,668 to Tomko.

As per claims 1, 2, and 7, *Tomko* discloses a transaction system that includes a smartcard (which contains a computer chip and computer-readable medium) that registration data in a PIN, performs an encryption based on the PIN and biometric input data, such as a fingerprint, and passes an encrypted result to a main processor. See column 4, line 52 to column 5, line 5.

As per claim 3, *Tomko* discloses that a random number is used with the encryption key to generate a key to encrypt the information. See column 4, lines 23-37.

As per claims 4, 8, 9, 11, and 15-17, *Tomko* discloses a main processor, which is communicatively connected to the portable unit, for receiving the enciphered text from the portable unit, has the ability to input information, decrypt received ciphertext, and compare the information to data from a database. See column 4, line 38 to column 5, line 53.

As per claim 5, *Tomko* discloses that the main processor is communicatively to a second portable unit. See column 5, lines 31-53.

As per claims 6, 10, 18, and 19, *Tomko* discloses that the registration data is to be doubly encrypted, using resources both from the portable and main units, allowing for mutual authentication. See column 4, lines 23-37.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,790,668 to Tomko as applied to claim 11 above, and further in view of U.S. Patent No. 5,805,712 to Davis.

Tomko discloses an authentication system that anticipates an invention of claim 11, but does not disclose any means for the authentication of other parts of the system by other parts.

Davis discloses an apparatus and method for secure communication among devices in which different devices are given encrypted certificates with private keys. *Davis* further suggests that the use of digital certificates is a common solution to the problem where two entities need to authenticate one another when communications are initially established. See column 2, lines 24-33 and Figure 7.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention disclosed in *Tomko* by having the units authenticate one another using digital certificates, as disclosed by *Davis*, in order to authenticate one another when communications are initially established.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,085,323 to Shimizu et al. discloses a system for interfacing a smartcard to a PC. This patent has at least one inventor in common with the instant application.

U.S. Patent No. 4,993,068 to Piosenka et al. discloses a biometric personal identification system.

U.S. Patent No. 5,153,918 to Tuai discloses a communications-based security system in which authentication is done based to a user's voice.

U.S. Patent No. 5,420,924 to Berson et al. discloses an identification card containing biometric information and means to use it.

U.S. Patent No. 5,644,710 to Johnson et al. discloses a highly secure access management system.

U.S. Patent No. 5,721,779 to Funk discloses a means for verifying a user's identity using a challenge-response.

U.S. Patent No. 5,822,431 to Sprunk discloses a system for authenticating the membership of elements in a group that is communicatively connected.

U.S. Patent No. 5,825,871 to Mark discloses a system for remotely storing identification information, and verifies using DTMF tones.

U.S. Patent No. 5,864,622 to Marcus discloses an identification card and a biometric system for user authentication.

U.S. Patent No. 6,076,167 to Borza discloses a system for authenticating connected computers using biometric identification.

U.S. Patent No. 6,484,260 to Scott et al. discloses an access system using portable hand-held units and biometric information for authentication.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew E. Heneghan whose telephone number is (703) 305-7727. The examiner can normally be reached on Monday-Thursday from 9:00 AM - 5:00 PM Eastern Time. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse, can be reached on (703) 308-4789.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, DC 20231

Or faxed to:

(703) 746-7239 (for formal communications intended for entry)

Or:

(703) 746-7240 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park 2, 2121 Crystal Drive, Arlington, VA 22202, Fourth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.


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September 5, 2003



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